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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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03/21/2005

Alan Ashby

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MAGINOT, MOORE & BECK, LLP

CHASE TOWER

111 MONUMENT CIRCLE

SUITE 3250

INDIANAPOLIS, IN 46204

EXAMINER

BOLES, SAMEH RAAFAT

ART UNIT

PAPER NUMBER

3775

MAIL DATE

DELIVERY MODE

06/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/507,165	Applicant(s) ASHBY ET AL.	
	Examiner SAMEH BOLES	Art Unit 3775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/9/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

According to the Amendment filed on 10/22/07, claim 1 has been amended, claims 12-20 have been added and claims 1-20 are pending and have been examined in this office action.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 4, 7, 8, 11-13 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sioufi (US. Pat. No. 5,409,489) in view of Morrison (US. Pat. No. 5,569,247) and further in view of Chin et al. (US. Pat. No. 5,897,557).

Sioufi discloses a navigation tool (see Figure A below) for locating an axis on or in relation to which an orthopaedic surgery procedure is to be performed, which comprises: a column member (support member) (1) comprising upper (2) and lower parts (3) of which the lower part can be fastened to a bone (4), the upper part having a mating surface at its lower end which defines an upper part mating plane (5) and the lower part having a mating surface at its upper end which defines a lower part mating plane (6), the upper and lower parts being connected to one another with the mating surfaces in contact with one another; the column member having means include a bearings (9)(col. 7, lines 58-62), wherein the upper and lower parts being rotatable in relation to each other in such a way that the upper and lower parts can be rotated

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relative to one another about a first axis which is perpendicular to the mating planes, a connector (8) by which the lower part of the column member can be fastened to a bone, in which the connector having means include a bearings (9)(col. 7, lines 58-62) permits rotation of the lower part of the column member relative to the bone, around the axis of the lower part of the column member, a guide (10) is fastened to the upper part of the column member so that it extends transversely relative to the upper part of the column member, wherein the guide is spaced apart from the lower part of the support member so that no contact exists between the guide and the lower part of the support member; a cutting tool which can be used to cut the bone along an axis that is determined by the navigation tool (abstract).

Sioufi discloses the claimed invention except that the first axis being non- parallel to the axes of the upper and lower parts of the column member.

Morrison discloses a column member (support member) (1) (see Figure B below) comprising upper (2) and lower parts (3), wherein the upper and lower parts being rotatable in relation to each other (abstract) about a first axis being non- parallel to the second axes of the upper and lower parts of the column member, wherein an angle is defined by the first axis and the axes of the upper and lower parts of the column member.

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify the upper and lower parts of the column member of Sioufi to be rotatable about an axis being non- parallel to the axes of the upper and lower parts of the column member in view of Morrison for allowing the lower and upper

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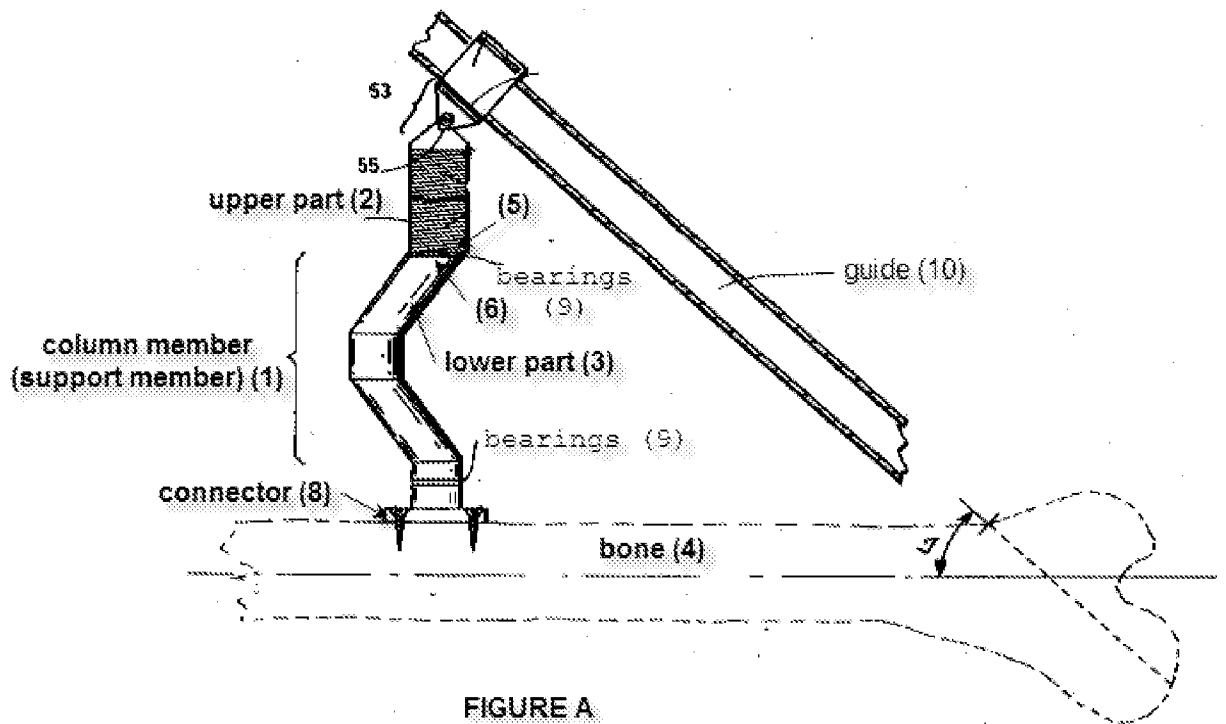
parts of column member to angle relative to one another in different directions and effectively locating an axis on or in relation to which an orthopaedic surgery procedure is to be performed.

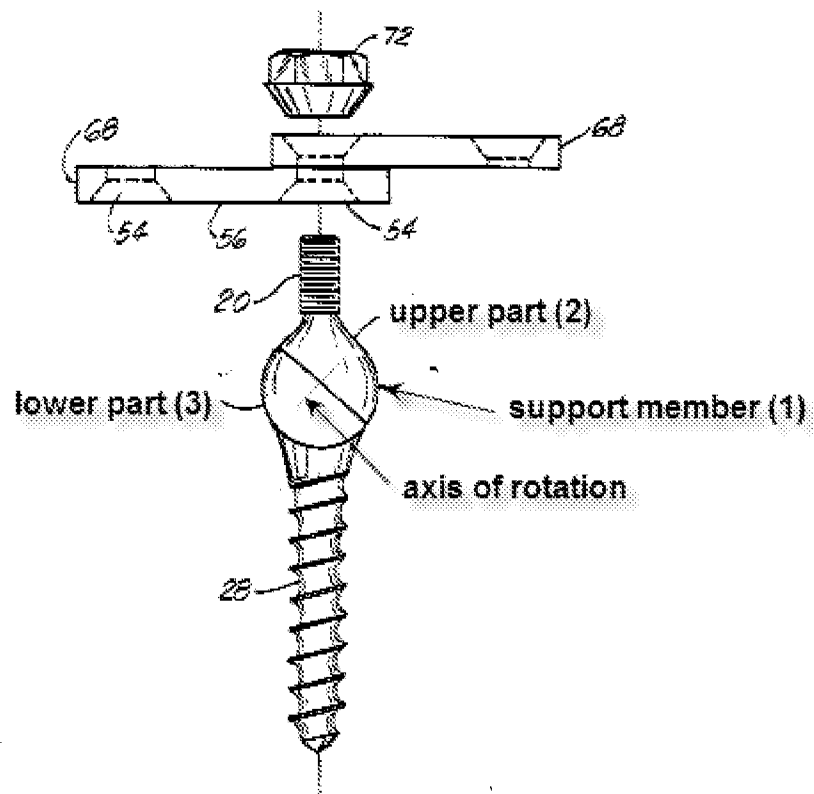
Sioufi in view of Morrison disclose the claimed invention except that the guide comprises a plate which has plurality of openings extending through it, wherein the guide can be moved relative to the column member so as to change the distance between the opening and the point at which the guide is fastened to the column member; and the guide can be rotated relative to the column member, about the point at which the guide is fastened to the column member.

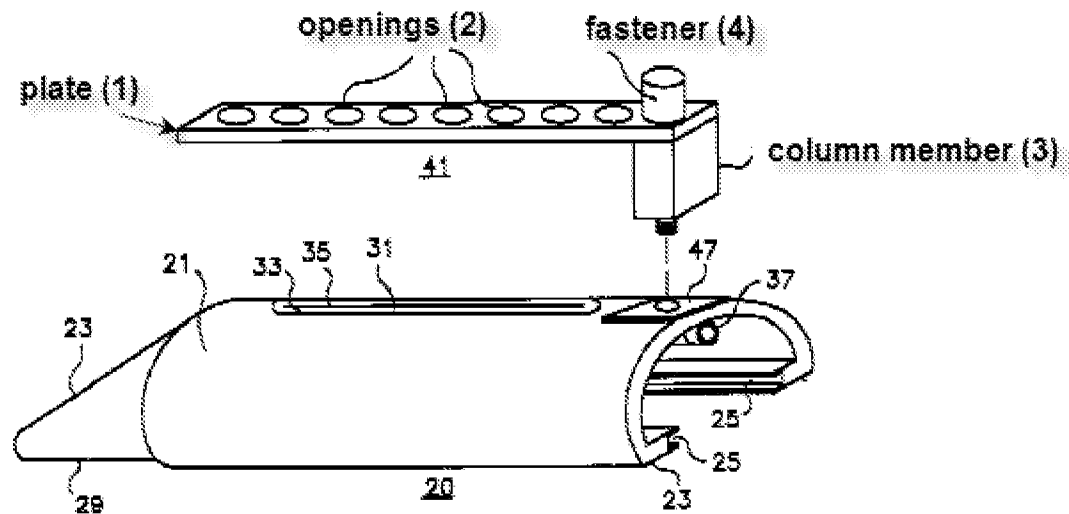
Chin et al disclose a guiding system (See Figure C below) comprising of a movable plate (1) which has plurality of openings (2) extending through it; the plate guide is fastened (4) to a column member (3), wherein the guide can be moved relative to the column member so as to change the distance between the opening and the point at which the guide is fastened to the column member; and the guide can be rotated relative to the column member, about the point at which the guide is fastened to the column member.

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify the guide member of Sioufi in view of Morrison a plate which has plurality of openings extending through it; and to be movable and rotatable relative to the point at which the guide is fastened to the column member further in view of Chin et al for effectively guiding the cutting tool into bone through the openings in different locations and positions during the orthopaedic surgery procedure.

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3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sioufi (US. Pat. No. 5,409,489) in view of Morrison (US. Pat. No. 5,569,247) and further in view of Chin et al. (US. Pat. No. 5,897,557) and furthermore in view of Daum et al. (US. Pub. No. 2003/0040753 A1).

Sioufi in view of Morrison and further in view of Chin et al disclose the claimed invention except the plate has a plurality of openings arranged on a helical line around the point at which the plate is fastened to the upper part of the column member.

Daum et al disclose a guide plate (205, Fig. 11b) has a plurality of openings (206) arranged on a helical line around the point (207) at which the plate is fastened to a spacer (column member) (214, Fig. 11a).

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to arrange the openings of the plate of Sioufi in view of

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Morrison and further in view of Chin et al on a helical line furthermore in view of Daum et al for effectively guiding the cutting tool into bone through the openings in different locations and positions during the orthopaedic surgery procedure.

4. Claims 5, 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sioufi (US. Pat. No. 5,409,489) in view of Morrison (US. Pat. No. 5,569,247) and further in view of Chin et al. (US. Pat. No. 5,897,557) and furthermore in view of Mizuno et al. (US. Pat. No. 5,876,325).

Sioufi in view of Morrison and further in view of Chin et al disclose the claimed invention except a motor for rotating the guide relative to the upper part of the column member and for rotating upper part of the column member relative to the lower part of the column member and for rotating the lower part of the column member relative to the bone.

Mizuno et al disclose a surgical manipulation system comprising of a motor control unit (502, Fig. 50) for rotating and actuating the column member parts (503) relative to each other (col. 29, lines 44-63).

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify the column member of Sioufi in view of Morrison and further in view of Chin et al with a motor furthermore in view of Mizuno et al for effectively controlling rotation of column member parts relative to each other.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sioufi (US. Pat. No. 5,409,489) in view of Morrison (US. Pat. No. 5,569,247) and further in

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view of Chin et al. (US. Pat. No. 5,897,557) and furthermore in view of Krause et al. (US. Pat. No. 6,711,432 B1).

Sioufi in view of Morrison and further in view of Chin et al disclose the claimed invention except at least one marker by which the tool can be located relative to the patient's bone.

Krause et al disclose at least one marker by which surgical guides can be located relative to the patient's bone (col. 10, lines 28-32).

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify the method of positioning the tool onto bone of Sioufi in view of Morrison and further in view of Chin et al with a marker furthermore in view of Krause et al for effectively locating the tool relative to the patient's bone.

6. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sioufi (US. Pat. No. 5,409,489) in view of Morrison (US. Pat. No. 5,569,247) and further in view of Chin et al. (US. Pat. No. 5,897,557).

Sioufi in view of Morrison and further in view of Chin et al disclose the claimed invention except the angle defined by the first axis and the axes of the upper and lower parts of the column member, in a range of between 5 -15 degrees.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the angle defined by the first axis and the axes of the upper and lower parts of the column member, in a range of between 5 -15 degrees, since it has been held that discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Response to Arguments

7. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAMEH BOLES whose telephone number is (571)270-5537. The examiner can normally be reached on Monday- Friday 7:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Barrett can be reached on (571)272-4746. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SAMEH BOLES/
Examiner, Art Unit 3775

/Thomas C. Barrett/
Supervisory Patent Examiner, Art
Unit 3775